

IN THE CLAIMS

Please rewrite claims 1-7 as follows:

1. (Currently Amended) A network system providing secure communication ~~service facility,~~
services, comprising:

central management and control ~~equipment including an encryption section; and,~~ equipment;

a plurality of pieces of switching equipment, each piece of switching equipment including an encryption section; and each piece of switching equipment being individually connected to said central management and control equipment, and said plurality of pieces of switching equipment constituting a circuit switched public network; and

wherein ~~the encryption section of said central management and control equipment encrypts a public key~~ delivers to a piece of switching equipment accommodating a data terminal of a called calling party,
~~and a common public key to encrypt a message for transmission between for a piece of switching equipment to perform message communication between~~ accommodating a data terminal of a calling called party and a called-party common key to encrypt a message for transmission via the circuit switched public network from the data terminal of the calling party to the data terminal of the called party each time a call requesting secure communication is originated; originated and the central management and control equipment delivers from the encrypted public key and common key to piece of switching equipment having detected the originated call. accommodating the data terminal of the calling party.

2. (Currently Amended) The network system according to claim 1,

wherein said central management and control equipment has a database maintaining public keys of the plurality of pieces of switching equipment, and receives from the piece of switching equipment having detected the call a called dial number and a user identification number assigned in said piece of switching equipment,

to retrieve in said database the public key of the piece of switching equipment accommodating the called dial number, and a public key of the piece of switching equipment detecting the originated call,

using the called dial number and the user identification number, and,
to generate the common key using the retrieved public keys.

3. (Currently Amended) The network system according to claim 1,
wherein said piece of switching equipment having detected the originated call encrypts the common key delivered from the central management and control equipment, using the public key of the piece of switching equipment accommodating the called party, to forward to said piece of switching equipment accommodating the called party,

thereby said piece of switching equipment accommodating the called party decrypts the encrypted common key received from the switching equipment having detected the originated call, using a private key maintained in said piece of switching equipment accommodating the called party.

4. (Currently Amended) The network system according to claim 1,
wherein said piece of switching equipment detecting the originated call is controlled so as to transit to the secure communication mode at each time of call origination.

5. (Currently Amended) The network system according to claim 1,
wherein said piece of switching equipment detecting the originated call is controlled so as to transit to the secure communication mode by the detection of indication in said call requesting to transit to the secure communication mode.

6. (Currently Amended) A method for delivering an encryption key to enable secure communication ~~facility provided~~ in a ~~network~~ communication system including having central management and control equipment and a plurality of pieces of switching equipment, each of said pieces of switching equipment ~~having~~ including an encryption section, and each piece of switching equipment being individually connected to said central management and control equipment, and said plurality of pieces of switching equipment constituting a circuit switched public network, the method comprising the steps of:

informing the central management and control equipment from a piece of switching equipment detecting a calling data terminal, which is accommodated by said switching equipment, of a called dial number of a called data terminal and a user identification number assigned in to the piece of switching equipment detecting a call from said switching equipment to central management and control equipment; the calling data terminal;

retrieving in a database of the central management and control equipment a public key ~~of for a piece of switching equipment accommodating a the called party data terminal by using the called dial number; and a public key of the switching equipment detecting the call using the user identification number; to generate a common key using the retrieved public keys; called number of the called data terminal;~~

generating a common key using the retrieved public key for the piece of switching equipment accommodating the called data terminal and a public key for the piece of switching equipment detecting the calling data terminal;

encrypting in the piece of switching equipment detecting the call calling data terminal, the generated common key using the retrieved public key of the piece of switching equipment accommodating the called party, ~~to forward to said switching equipment accommodating the called party;~~ and,

forwarding the encrypted common key to said piece of switching equipment accommodating the called party via the circuit switched public network; and

regenerating the encrypted common key in the piece of switching equipment accommodating the called party using a private key of said piece of switching equipment accommodating the called party.

7. (Currently Amended) The method according to claim 6, further comprising the step of:

encrypting a called ~~dial~~ number and a user identification number assigned in a piece of switching equipment detecting the call using a public key of the central management and control equipment, to transfer from said piece of switching equipment detecting the call to said central management and control equipment.